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The genus *Lasioglossum* Curtis, 1833 (Hymenoptera, Halictidae) in Azerbaijan

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Abstract

Available information about bees of the genus *Lasioglossum* in Azerbaijan is summarised. One hundred and one species are currently known from this country. Twenty-three species are newly recorded from the Caucasus region and additional eighteen species are newly recorded from Azerbaijan. Three species are excluded from the list of Azerbaijani fauna. A new synonymy is proposed for *Lasioglossum euxinicum* Ebmer, 1972 = *L. alievi* Pesenko, 1986, **syn. nov.**, and a lectotype is designated for *Halictus schelkovnikovi* Kokujev, 1913.

Keywords

Anthophila, Apiformes, fauna, new records, new synonym, the Caucasus region

Introduction

The global genus *Lasioglossum* Curtis, 1833 currently includes 1,841 described species (Ascher and Pickering 2024), with the highest known diversity in the Holarctic region (Michener 2007). A total of 450 species are known from the Palaearctic region (Astafurova and Proshchalykin 2017), of which 182 species occur in Europe (Astafurova and Proshchalykin 2023, 2024; Ghisbain et al. 2023), 168 species from Turkey, and 145 species from Iran (Ascher and Pickering 2024).

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The Caucasus region is a mountainous area between the Black Sea and the Caspian Sea, considered part of the natural border between Europe and Asia. Geographically, it is usually considered part of western Asia, bordering north-eastern Turkey and north-western Iran. The northern edge of the Caucasus is known as the Ciscaucasus and the southern part as the Transcaucasus. The Ciscaucasus contains most of the Greater Caucasus mountain range, also known as the Great Caucasus. It includes the southern part of European Russia (Krasnodar Territory, Stavropol Territory, Adygea Republic, Karachayevo-Cherkessk Republic, Ingushetia Republic, Kabardino-Balkarsk Republic, Severnaya Osetia Republic, Chechenskaya Republic, and Dagestan Republic) and northern parts of Georgia and Azerbaijan. The Transcaucasus is bordered by Russia to the north, the Black Sea and Turkey to the west, the Caspian Sea to the east and Iran to the south. It includes the Caucasus Mountains and the surrounding lowlands. All of Armenia, Azerbaijan (except the northern parts) and Georgia (except the northern parts) are part of the South Caucasus (Kuhlmann and Proshchalykin 2016; Lelej et al. 2022).

The present paper is a part of the ongoing research of bees of the territory of Azerbaijan (Aliyev et al. 2017; Proshchalykin et al. 2019; Fateryga et al. 2020; Proshchalykin and Maharramov 2020; Maharramov et al. 2021, 2023). Azerbaijan has long been known to have a potentially rich bee fauna. However, there is no modern comprehensive work that summarises all the information on the *Lasioglossum* mentioned in the literature. The present work has been compiled to provide a revised list of the *Lasioglossum* species found in Azerbaijan, to provide a critical assessment of previous literature records, and to analyse the composition of the *Lasioglossum* fauna of Azerbaijan and its similarity with neighbouring countries.

Halictus alpestris [=*Lasioglossum costulatum*] and *H. truncaticollis* [=*L. truncaticolle*] was the first species of the genus described from Azerbaijan (Morawitz 1877), and ten species and one subspecies have been described since from this area (Blüthgen – five species and one subspecies; Pesenko – two species; Friese – one species; Kokujev – one species; Ebmer – one species), with eight of them still valid (Table 1). Sixty *Lasioglossum* species have been recorded from Azerbaijan so far (see "Published data" section below).

In this paper we enumerate 101 species of the genus *Lasioglossum*, including 23 species newly recorded from the Caucasus region, and additional 18 species are newly recorded from Azerbaijan. Three species are excluded from the Azerbaijani fauna.

Materials and methods

The results presented in this paper are based on 2150 specimens collected in Azerbaijan and currently housed in the Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia, **ZISP**), Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of Russian Academy of Sciences (Vladivostok, Russia, **FSCV**) and the collection of the Institute of Zoology of the National Academy of Sciences of Azerbaijan (Baku, Azerbaijan, **IZAB**).

Table 1. Taxa of the genus *Lasioglossum* described from Azerbaijan.

Original spelling	Current status	Source
Halictus acephaloides Blüthgen, 1931	valid, as *Lasioglossum acephaloides* (Blüthgen, 1931)	Astafurova and Proshchalykin 2018
Halictus alpestris Morawitz, 1877	junior synonym of *Lasioglossum costulatum* (Kriechbaumer, 1873)	Astafurova and Proshchalykin 2018
Halictus ciscapus Blüthgen, 1931	valid, as *Lasioglossum ciscapum* (Blüthgen, 1931)	Ebmer 2000
Halictus haesitans Blüthgen, 1931	junior synonym of *Lasioglossum korbi* (Blüthgen, 1929)	Astafurova and Proshchalykin 2018
Halictus kussariensis Blüthgen, 1925	valid, as *Lasioglossum kussariense* (Blüthgen, 1925)	Ebmer 1970
Halictus ordubadensis Friese, 1916	valid, as *Lasioglossum ordubadense* (Friese, 1916)	Ebmer 1995
Halictus schelkovnikovi Kokujev, 1912	junior synonym of *Lasioglossum anellum* (Vachal, 1905)	Ebmer 1981
Halictus talyschensis Blüthgen, 1925	valid, as *Lasioglossum talyschense* (Blüthgen, 1925)	Ebmer 1978
Halictus truncaticollis Morawitz, 1877	valid, as *Lasioglossum truncaticolle* (Morawitz, 1877)	Astafurova and Proshchalykin 2018
Halictus zonulus sinister Blüthgen, 1934	junior synonym of *Lasioglossum zonulum* (Smith, 1848)	Ebmer 1970
Lasioglossum alievi Pesenko, 1986	junior synonym of *Lasioglossum euxinicum* Ebmer, 1972	current paper
Lasioglossum euxanthopus Pesenko, 1986	valid	Astafurova and Proshchalykin 2018
Lasioglossum muganicum Ebmer, 1972	valid	Astafurova and Proshchalykin 2024

The subgeneric classification of *Lasioglossum* is based on the conclusions of Gibbs et al. (2013) and follows Zhang et al. (2022), Ghisbain et al. (2023) and Proshchalykin et al. (2023). Taxonomy, including subspecies status, follows Ebmer (1988, 1995), Pesenko et al. (2000), Pesenko (2006) and Pauly (2016). Distribution of *Lasioglossum* species is mainly based on Pauly (2016), Astafurova and Proshchalykin (2017, 2024), and Boustani et al. (2021) for Lebanon, with some additional references noted in the text. Subgenera and species are given in the text in alphabetical order. Labelling data for all specimens examined can be found in Suppl. material 1.

Specimens were studied with an Olympus SZ51 stereomicroscope, and photographs were taken with a combination of stereomicroscope (Olympus SZX10) and digital camera (Olympus OM-D). Final images are stacked composites generated using Helicon Focus v. 7.7.4 Pro. All images were post-processed for contrast and brightness using Adobe Photoshop. New distributional records are noted with an asterisk (*).

Results

Species list

Genus *Lasioglossum* Curtis, 1833

Lasioglossum Curtis, 1833: pl. 448. Type species: *Lasioglossum tricingulum* Curtis, 1833=*Melitta xanthopus* Kirby, 1802, by original designation.

Subgenus *Biennilaeus* Pesenko, 2007

Lasioglossum marginatum (Brullé, 1832)

Published data. Morawitz 1873: 165, as *Halictus riparius* (Azerbaijan); Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 180 ♀, 1 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Southern and locally Central Europe, North Africa, Turkey, Russia (European part), Syria, Jordan, Israel, Lebanon, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Northwestern India, Nepal.

Remarks. One of the most common of *Lasioglossum* species in Azerbaijan.

Subgenus *Dialictus* Robertson, 1902

Lasioglossum aeratum (Kirby, 1802)

Published data. No records in Azerbaijan.

Material examined. 1 ♀, 3 ♂.

Distribution. Caucasus: *Azerbaijan, Russia. – Europe, Turkey, Russia (European part), Syria, Iran, Central Asia.

Lasioglossum araxanum (Blüthgen, 1923)

Published data. Blüthgen 1923: 244 ("Araxestal" [Aras River valley in Azerbaijan, Armenia and Iran]).

Material examined. –

Distribution. Caucasus: unknown country (Azerbaijan or Armenia). – Iran, Turkey, northern India (Blüthgen 1923; Warncke 1975).

Lasioglossum hethiticum Ebmer, 1970

Published data. No records in Azerbaijan.

Material examined. 1 ♂.

Distribution. *Caucasus: Azerbaijan. – Turkey, Greece, Lebanon (Ghisban et al. 2023).

Lasioglossum leucopus (Kirby, 1802)

Published data. No records in Azerbaijan.

Material examined. 16 ♀, 1 ♂.

Distribution. Caucasus: *Azerbaijan, Russia. – Europe, Turkey, Russia (east to Yakutia), Iran.

Lasioglossum morio (Fabricius, 1793)

Published data. Ebmer 1988: 622 (Caucasus).

Material examined. 5 ♀, 11 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Turkey, Russia (east to Altai), Israel, Lebanon [nominative subspecies]; North Africa, Spain [ssp. *cordialie* (Pérez, 1903)].

Lasioglossum podolicum (Noskiewicz, 1925)

Published data. No records in Azerbaijan.

Material examined. 2 ♀, 1 ♂.

Distribution. *Caucasus: Azerbaijan. – Steppe of Europe east to Russia (Lipetsk Prov.), Turkey [nominative subspecies]; Iran [ssp. *canus* (Warncke, 1982)].

Lasioglossum talyschense (Blüthgen, 1925)

Published data. Blüthgen 1925: 130, as *Halictus talyschensis* (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan. – Northeastern Turkey, Iran (Ebmer 1978; Warncke 1982).

Subgenus *Hemihalictus* Cockerell, 1897

Lasioglossum adabaschum (Blüthgen, 1931)

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution. *Caucasus: Azerbaijan. – Russia (Astrakhan Province, Kalmyk Republic), Turkmenistan.

Lasioglossum brevicorne (Schenck, 1869)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 9 ♀, 2 ♂.

Distribution. Caucasus: Azerbaijan. – Europe, North Africa, Turkey, Israel, Lebanon, Russia (European part), Iran, Afghanistan [nominative subspecies]; Canary Is. [ssp. *gomerense* Ebmer, 1972].

Lasioglossum bluethgeni Ebmer, 1971

Published data. No records in Azerbaijan.

Material examined. 2 ♀.

Distribution. Caucasus: *Azerbaijan, Georgia, Russia. – Southern and locally middle Europe, Ukraine, Lebanon, Turkey (Ebmer 2000).

Lasioglossum ciscapum (Blüthgen, 1931)

Published data. Blüthgen 1931: 213 (Azerbaijan).

Material examined. 4 ♀.

Distribution. Caucasus: Azerbaijan. – Turkey, Russia (Astrakhan Prov., Kalmyk Rep.), southern Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan (Ebmer 2000).

Lasioglossum clypeare (Schenck, 1853)

Published data. Blüthgen 1935: 120 (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan, Georgia, Russia. – Southern and locally central Europe, Lebanon, Turkey, Russia (east to south Ural), Iran, Kyrgyzstan, Kazakhstan.

Lasioglossum clypeiferellum (Strand, 1909)

Published data. No records in Azerbaijan.

Material examined. 50 ♀, 3 ♂.

Distribution. *Caucasus: Azerbaijan. – Egypt, Macedonia, Greece, Crete, Lebanon, Israel, Syria (Hermon Mt.), Cyprus, Turkey, Iran, Afghanistan, Uzbekistan, Kyrgyzstan, Tajikistan, Mongolia (Bytinski-Salz and Ebmer 1974; Ebmer 1980, 1982; Warncke 1982; Murao et al. 2017).

Lasioglossum convexiusculum (Schenck, 1853)

Published data. No records in Azerbaijan.

Material examined. 4 ♀, 1 ♂.

Distribution. *Caucasus: Azerbaijan. – Europe (except north), Lebanon, Turkey, Russia (east to the Urals), Iran.

Remarks. The record of the species from Armenia ("Kasikoporan") by Blüthgen (1935: 117) should be considered as a locality in Turkey.

Lasioglossum corvinum (Morawitz, 1877)

Published data. No records in Azerbaijan.

Material examined. 3 ♀.

Distribution. Caucasus: *Azerbaijan, Armenia, Georgia, Russia. – Southern Europe (north to Germany), North Africa, Lebanon, Caucasus, Turkey, Russia (Crimea, south of the European part), Iran (Morawitz 1877; Skhirtladze 1981; Ebmer 1988; Silló 2024).

Lasioglossum crassepunctatum (Blüthgen, 1923)

Published data. Blüthgen 1923: 280, as *Halictus crassepunctatus* (Azerbaijan); Ebmer 2000: 435 (Azerbaijan).

Material examined. 10 ♀, 1 ♂.

Distribution. Caucasus: Azerbaijan, Russia. – Southern and Central Europe, Israel, Lebanon, Jordan, Turkey, Russia (Crimea, central and south of the European part), Iran.

Lasioglossum croceipes (Morawitz, 1876)

Published data. Blüthgen 1923: 246, as *Halictus longiceps* ("Araxestal" [Aras River valley in Azerbaijan, Armenia and Iran]).

Material examined. –

Distribution. Caucasus: unknown country (Azerbaijan or Armenia). – Turkey, Iran, Afghanistan, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan (Ebmer 1997; Murao et al. 2017).

Lasioglossum elegans (Lepeletier, 1841)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 1 ♀.

Distribution. Caucasus: Azerbaijan, Georgia. – Southern and locally Central Europe, North Africa, Turkey, Russia (south of the European part), Iran, Turkmenistan.

Lasioglossum griseolum (Morawitz, 1872)

Published data. No records in Azerbaijan.

Material examined. 12 ♀.

Distribution. Caucasus: Azerbaijan, Georgia, Russia. – Eastern and South Europe, Turkey, Israel, Lebanon, Russia (south of the European part), Iran, Afghanistan, Kazakhstan, Kyrgyzstan, [nominative subspecies]; North Africa, Saudi Arabia [ssp. *musculum* (Blüthgen, 1924)].

Lasioglossum hilare Ebmer, 1972

Published data. Ebmer 2014: 339 (Azerbaijan).

Material examined. 1 ♀.

Distribution. Caucasus: Azerbaijan. – Macedonia, Greece, Jordan, Turkey, Iran, Afghanistan, Kazakhstan, Uzbekistan, Kyrgyzstan (Ebmer 2014).

Lasioglossum intermedium (Schenck, 1869)

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution. Caucasus: *Azerbaijan, Russia. – Europe, Turkey, Iran.

Lasioglossum laevidorsum (Blüthgen, 1923)

Published data. Blüthgen 1923: 257 ("Araxestal" [Aras River valley in Azerbaijan, Armenia and Iran]); Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan, Armenia. – Southern Europe, Lebanon, eastern Turkey, Iran [nominative subspecies]; Middle Europe [ssp. *priesneriellum* (Warncke, 1981)]; Egypt, Iran [ssp. *katharinae* Ebmer, 1974]; Cyprus [ssp. *troodicum* (Blüthgen, 1938)]. The Balkan (Macedonia, Greece) populations are intermediate ones between ssp. *laevidorsum* and ssp. *priesneriellum* (Ebmer 1988).

Lasioglossum limbellum (Morawitz, 1876)

Published data. No records in Azerbaijan.

Material examined. 15 ♀, 15 ♂.

Distribution. Caucasus: *Azerbaijan, Russia. – Southeastern Europe, Israel, Turkey, Russia (south of the European part), Iran, Afghanistan, Kazakhstan, Uzbekistan, Tajikistan, China (Gansu) [nominative subspecies]; North Africa, southwestern Europe [ssp. *ventrale* (Pérez, 1903)].

Lasioglossum lucidulum (Schenck, 1861)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 14 ♀, 12 ♂.

Distribution. Caucasus: Azerbaijan, Russia. – Europe, Israel, Lebanon, Turkey, Russia (east to western Siberia), Iran, Afghanistan, Pakistan, Central Asia, Mongolia, Northern China.

Lasioglossum maculipes (Morawitz, 1876)

Published data. No records in Azerbaijan.

Material examined. 2 ♀.

Distribution. *Caucasus: Azerbaijan. – Southeastern Turkmenistan, Tajikistan, Uzbekistan, Iran, Afghanistan (Ebmer 1986).

Lasioglossum medinai (Vachal, 1895)

Published data. No records in Azerbaijan.

Material examined. 45 ♀, 1 ♂.

Distribution. *Caucasus: Azerbaijan. – North Africa, Southern Europe, Russia (south of the European part), Israel.

Lasioglossum mesosclerum (Pérez, 1903)

Published data. Blüthgen 1931: 319 (Azerbaijan); Ebmer 2000: 418 (Azerbaijan).

Material examined. 19 ♀, 3 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Southern and Central Europe, North Africa, Syria, Jordan, Israel, Lebanon, Turkey, Russia (south of the European part), Iran, Afghanistan, Central Asia.

Lasioglossum nitidiusculum (Kirby, 1802)

Published data. No records in Azerbaijan.

Material examined. 5 ♀, 3 ♂.

Distribution. Caucasus: *Azerbaijan, Russia. – Europe, North Africa, Lebanon, Turkey, Russia (east to the Altai), Kazakhstan, Turkmenistan, Iran [nominative subspecies]; Sardinia [ssp. *pseudocombinatus* (Blüthgen, 1921)] (Ebmer 2011; Murao et al. 2017).

Lasioglossum parvulum (Schenck, 1853)

Published data. No records in Azerbaijan.

Material examined. 1 ♀, 6 ♂

Distribution. Caucasus: *Azerbaijan, Armenia, Russia. – Europe, Turkey, Russia (east to the Urals), Iran.

Lasioglossum peregrinum (Blüthgen, 1923)

Published data. No records in Azerbaijan.

Material examined. 4 ♀.

Distribution. Caucasus: *Azerbaijan, Armenia, Georgia. – Southern Europe, Israel, Turkey, Iran (Ebmer 1997).

Lasioglossum popovi (Blüthgen, 1931)

Published data. No records in Azerbaijan.

Material examined. 3 ♀.

Distribution. *Caucasus: Azerbaijan. – Southern Kazakhstan, Turkmenistan, Uzbekistan (Blüthgen 1931).

Lasioglossum punctatissimum (Schenck, 1853)

Published data. No records in Azerbaijan.

Material examined. 6 ♀, 1 ♂.

Distribution. Caucasus: *Azerbaijan, ?Armenia, ?Georgia. – Europe, Israel, Lebanon, Turkey, Russia (east to the Urals), Iran [nominative subspecies]; North Africa, Iberian Peninsula, Sicily [ssp. *angustifrons* (Vachal, 1892)].

Remarks. This species was recorded without locality for the Caucasus by Bytinski-Salz and Ebmer (1974: 192).

Lasioglossum puncticolle (Morawitz, 1872)

Published data. No records in Azerbaijan.

Material examined. 12 ♀.

Distribution. Caucasus: *Azerbaijan, Georgia, Russia. – Europe, North Africa, Syria, Lebanon, Turkey, Russia (east to the Urals), Iran.

Lasioglossum pygmaeum (Vachal, 1905)

Published data. Blüthgen 1925: 112, as *Halictus denislucus*; Ebmer 2000: 410 (Azerbaijan).

Material examined. 57 ♀, 5 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia [ssp. *patulum* (Vachal, 1905)]. – North Africa, southern and locally Central Europe [nominative subspecies]; southeastern Europe, Russia (Crimea, south of the European part), Caucasus, Turkey, Syria, Jordan, Lebanon, Iran, Afghanistan, Pakistan, Central Asia [ssp. *patulum* (Vachal, 1905)].

Lasioglossum quadrinotatulum (Schenck, 1861)

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution.*Caucasus: Azerbaijan. – Europe, Turkey, Russia (east to eastern Siberia), North China.

Lasioglossum quadrisignatum (Schenck, 1853)

Published data. Ebmer 1997: 954 (Azerbaijan).

Material examined. 1 ♀, 1 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia. – Europe, Turkey, Russia (central and south of the European part), Iran.

Lasioglossum rufitarse (Zetterstedt, 1838)

Published data. Ebmer and Sakagami 1985: 308 (Azerbaijan).

Material examined. 2 ♀, 17 ♂.

Distribution. Caucasus: Azerbaijan, Russia. – Europe, Russia (east to the Far East), Turkey, Iran, Kazakhstan, Mongolia, China (NE, SE), North Korea, Canada, USA (Ebmer 2011).

Lasioglossum semilucens (Alfken, 1914)

Published data. Ebmer 1988: 663 (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan, Russia. – Europe, Russia (European part), Turkey, Afghanistan, Tajikistan, Kyrgyzstan, Kazakhstan (Ebmer 2014).

Lasioglossum stolidum (Warncke, 1982)

Published data. No records in Azerbaijan.

Material examined. 2 ♀.

Distribution. *Caucasus: Azerbaijan. – Israel, Turkey (Warncke 1982, 1984).

Lasioglossum subaenescens (Pérez, 1895)

Published data. Ebmer 1997: 933 (Azerbaijan).

Material examined. 8 ♀, 3 ♂.

Distribution. Caucasus: Azerbaijan [ssp. *asiaticum* (Dalla Torre, 1896)]. – Southern Europe [nominative subspecies, the transgression zone is situated in Macedonia, Bulgaria (Ebmer 1988, 1997)]; Greece, Ukraine, Egypt, Turkey, Near East, Iran, Russia (Crimea, south of the European part), Central Asia, Mongolia, China (Xinijang) [ssp. *asiaticum* (Dalla Torre, 1896)].

Lasioglossum tarsatum (Schenck, 1869)

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution. *Caucasus: Azerbaijan. – Europe, Russia (European part), Afghanistan.

Lasioglossum transitorium (Schenck, 1869)

Published data. No records in Azerbaijan.

Material examined. 2 ♀.

Distribution. *Caucasus: Azerbaijan [ssp. *uncinum* (Vachal, 1905)]. – Balkans and European part of Turkey [nominative subspecies]; Morocco, Algeria, Tunis, Libya, Portugal, Spain, France, Italy, Sicily, Switzerland [ssp. *planulum* (Pérez, 1903), transgression zone in southern Tirol)]; Egypt, Crete, Syria, Jordan, Lebanon, Israel, Cyprus, Turkey [ssp. *uncinum*].

Lasioglossum truncaticolle (Morawitz, 1877)

Published data. Morawitz 1877: 90 (Azerbaijan).

Material examined. 30 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia. – Southern and locally central Europe, North Africa, Syria, Israel, Lebanon, Caucasus, Turkey, Russia (Crimea, south of the European part), Iran, Kazakhstan.

Lasioglossum villosulum (Kirby, 1802)

Published data. No records in Azerbaijan.

Material examined. 2 ♂.

Distribution. Caucasus: *Azerbaijan, Russia. – Europe, North Africa, Syria, Israel, Lebanon, Turkey, Russia (east to the Far East), Iran, Afghanistan, Tajikistan, Mongolia, China, Korea, Japan, India, Nepal, Malaysia, Canada, USA.

Remarks. The previous record of the species from the Caucasus (Georgia) by Skhirtladze (1981: 42) may refer to *L. medinai*.

Subgenus *Lasioglossum* s. str.

***Lasioglossum acephaloides* (Blüthgen, 1931)**

Published data. Blüthgen 1925: 100, as *Halictus acephalus*; 1931: 346; Aliyev et al. 2007: 254 (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Turkey (Blüthgen 1925, 1931; Warncke 1975).

Remarks. This species was described by Blüthgen (1931: 346) from Azerbaijan (Helendorf [Goygol]) and Russia (Prikumsk [Stavropol Terr., Budenovsk]), but was overlooked in the catalogue of Russian bees (Astafurova and Proshchalykin 2017; Proshchalykin et al. 2023).

***Lasioglossum argaeum* (Blüthgen, 1931)**

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution. *Caucasus: Azerbaijan. – Turkey (Blüthgen 1931; Warncke 1984).

***Lasioglossum bicallosum* (Morawitz, 1873)**

Published data. Pesenko 1986: 124 (Caucasus).

Material examined. 1 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Southeastern Europe, Israel, Turkey, Russia (Crimea, south of the European part), Iran.

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 124).

***Lasioglossum caspicum* (Morawitz, 1873)**

Published data. Blüthgen 1923: 266; Aliyev et al. 2007: 254 (Azerbaijan); Pesenko 1986: 124 (Caucasus).

Material examined. 17 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Israel, Lebanon, Syria, Turkey, Turkmenistan, Iran, Afghanistan.

Lasioglossum cristula (Pérez, 1895)

Published data. Blüthgen 1925: 87, as *Halictus cristula*; 1929: 55, as *H. korbi* (Azerbaijan); Pesenko 1986: 125 (Caucasus).

Material examined. 3 ♀, 2 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Syria, Israel, Lebanon, Turkey, Iran [ssp. *donatum* (Warncke, 1975)]; North Africa, southern Europe [nominative subspecies] (Pesenko 1986).

Lasioglossum costulatum (Kriechbaumer, 1873)

Published data. Pesenko 1986: 137 (Caucasus).

Material examined. 2 ♀, 1 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, North Africa, Lebanon, Turkey, Syria, Russia (east to Eastern Siberia), Iran, Central Asia.

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 137).

Lasioglossum fallax (Morawitz, 1873)

Published data. Pesenko 1986: 131 (Caucasus).

Material examined. 2 ♀, 4 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – South Russia (east to the Urals), Turkey, Iran, Turkmenistan [nominative subspecies]; Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, Afghanistan, Mongolia [ssp. *melanarium* (Morawitz, 1876)]; Pakistan [ssp. *rhadiourgon* Ebmer, 1980] (Ebmer 1998).

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 137).

Lasioglossum equestre (Morawitz, 1876)

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution. *Caucasus: Azerbaijan. – Turkey, Uzbekistan, Tajikistan, Kyrgyzstan, southeastern Kazakhstan (Pesenko 1986).

Lasioglossum euxanthopus Pesenko, 1986

Published data. Pesenko 1986: 127 (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan. – Southwestern Turkmenistan (Pesenko 1986).

Lasioglossum euxinicum Ebmer, 1972

Lasioglossum euxinicum Ebmer, 1972: 233, ♀ (holotype: ♀, Sevastopol, Crimea).
Lasioglossum alievi Pesenko, 1986: 128, fig. 14, ♀ (holotype: ♀, Azerbaijan: Istisu; ZISP), examined, syn. nov.

Published data. Ebmer 1978: 38; 1981: 115 (Ordubad, Azerbaijan); Pesenko 1986, as L. alievi; Aliyev et al. 2007: 254 (Azerbaijan).

Material examined. Holotype of *Lasioglossum alievi* Pesenko.

Distribution. Caucasus: Azerbaijan. – Morocco, Italy, Russia (Crimea), Iran (Pesenko 1986).

Taxonomical note. Pesenko (1986: 128) described *Lasioglossum alievi* from Azerbaijan and noted that this species has a black (without metallic lustre) body. However, the holotype of *L. alievi* has a weak metallic lustre on the head and mesoscutum (see figs 59c, d in Astafurova and Proshchalykin 2018: 54). A.W. Ebmer examined the type in 1988 and labelled the specimen as *Lasioglossum euxinicum* ssp. *euxinicum*, but did not publish the synonymy. Although Pesenko (2007) considered this species to be valid, we have supported Ebmer's opinion and *Lasioglossum alievi* Pesenko, 1986 is established here as a junior synonym for *L. euxinicum* Ebmer, 1972.

Lasioglossum korbi (Blüthgen, 1929)

Published data. Blüthgen 1931: 348, as *Halictus haesitans*; Pesenko 1986: 123 (Azerbaijan).

Material examined. 28 ♀, 5 ♂.

Distribution. Caucasus: Azerbaijan, Russia. – Turkey (Pesenko 1986).

Lasioglossum kussariense (Blüthgen, 1925)

Published data. Blüthgen 1925: 96 (Azerbaijan), Pesenko 1986: 122 (Caucasus).

Material examined. 1 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Middle and southeastern Europe, Lebanon, Turkey (Blüthgen 1925, 1931; Ebmer 1988).

Lasioglossum laevigatum (Kirby, 1802)

Published data. Pesenko 1986: 139 (Caucasus).

Material examined. 9 ♀, 5 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Turkey, Russia (east to the Urals), Iran.

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 139).

Lasioglossum lativentre (Schenck, 1853)

Published data. Pesenko 1986: 123 (Caucasus).

Material examined. 17 ♀, 2 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Turkey, Russia (Crimea, European part), Near East, Iran.

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 123).

Lasioglossum prunellum (Warncke, 1975)

Published data. Ebmer 1981: 114 (Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan. – Greece, Turkey (Ebmer 1981).

Lasioglossum quadrinotatum (Kirby, 1802)

Published data. Pesenko 1986: 124 (Caucasus); Aliyev et al. 2007: 254 (Azerbaijan).

Material examined. 5 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Turkey, Russia (east to the Urals), Iran, Kazakhstan.

Lasioglossum sexnotatum (Kirby, 1802)

Published data. Pesenko 1986: 127 (Caucasus); Aliyev et al. 2007: 254 (Azerbaijan); Ebmer 2014: 316 (Azerbaijan).

Material examined. 4 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Crete, Turkey, Russia (Crimea, European part), Turkmenistan, Iran (Pesenko 1986; Ebmer 2014).

Lasioglossum subfasciatum (Imhoff, 1832)

Published data. Pesenko 1986: 127 (Caucasus).

Material examined. 1 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia. – Middle and southern Europe, Near East, Turkey, Iran (Warncke 1975; Ebmer 1978).

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 127).

Lasioglossum tungusicum Ebmer, 1978

Published data. Ebmer 1982: 209; Pesenko 1986: 129 (Azerbaijan).

Material examined. 1 ♀.

Distribution. Caucasus: Azerbaijan, Armenia. – Russia (east to Amur Prov.), Turkey, Iran, Kazakhstan, Mongolia, China.

Lasioglossum xanthopus (Kirby, 1802)

Published data. Skhirtladze 1981: 43; Aliyev et al. 2007: 254; Pesenko 1986: 126 (Caucasus).

Material examined. 9 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, North Africa, Turkey, Israel, Lebanon, Russia (east to the Urals), Iran, Pakistan, Central Asia, Mongolia, Northwestern China.

Subgenus *Leuchalictus* Warncke, 1975

Lasioglossum aegyptiellum (Strand, 1909)

Published data. Pesenko 1986: 140 (Caucasus).

Material examined. 16 ♀, 2 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – North Africa, Lebanon, Turkey, Russia (Crimea, Kalmyk Rep.), Near East, Iran, Iraq, Turkmenistan.

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 140).

Lasioglossum discus (Smith, 1853)

Published data. Pesenko 1986: 140 (Caucasus).

Material examined. 1 ♀, 5 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe (except north), North Africa, Turkey, Israel, Lebanon, Russia (east to Eastern Siberia), Iran, Afghanistan, Central Asia, Northwestern China.

Remarks. This species was recorded without locality for the Caucasus by Pesenko (1986: 140).

Lasioglossum leucozonium (Schrank, 1781)

Published data. Pesenko 1986: 143, as *L. tadschicum*; Aliyev et al. 2007: 254 (Azerbaijan); Pesenko 1986: 143 (Caucasus).

Material examined. 21 ♀, 17 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, North Africa, Near East, Turkey, Russia (east to the Far East), Iran, Afghanistan, Pakistan, North India, Central Asia, Mongolia, NW China, North America.

Lasioglossum picipes (Morawitz, 1876)

Published data. No records in Azerbaijan.

Material examined. 1 ♂.

Distribution. *Caucasus: Azerbaijan. – Israel, Turkey, Iraq, Iran, Afghanistan Turkmenistan, Uzbekistan, Tajikistan (Pesenko 1986).

Lasioglossum zonulus (Smith, 1848)

Published data. Pesenko 1986: 142 (Caucasus); Aliyev et al. 2007: 254 (Azerbaijan).

Material examined. 10 ♀, 14 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Turkey, Russia (east to Eastern Siberia), Iran, Central Asia, China, North America.

Subgenus *Pygbalictus* Warncke, 1975

Lasioglossum glabriusculum (Morawitz, 1872)

Published data. No records in Azerbaijan.

Material examined. 96 ♀, 32 ♂.

Distribution. Caucasus: *Azerbaijan, Georgia, Russia. – Europe (except north), Syria, Jordan, Israel, Lebanon, Turkey, Russia (south of the European part), Iran [nominative subspecies]; North Africa [ssp. *ultraparvus* (Cockerell, 1938)].

Lasioglossum mandibulare (Morawitz, 1866)

Published data. Aliyev et al. 2007: 256 (Azerbaijan).

Material examined. 2 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Russia. – Southern Europe, North Africa, Turkey, Israel, Iraq, Russia (south of the European part), Turkmenistan, Kazakhstan, north-western China (Ebmer 1988, 2014; Murao et al. 2017).

Lasioglossum politum (Schenck, 1853)

Published data. No records in Azerbaijan.

Material examined. 101 ♀, 11 ♂.

Distribution. Caucasus: *Azerbaijan, Georgia, Russia. – Europe (except north), Russia (east to the Urals) [nominative subspecies]; North Africa, Near East, Asia Minor, Uzbekistan, Tajikistan, Kyrgyzstan, Iran [ssp. *atomarium* (Morawitz, 1876)]; Eastern China, Japan [ssp. *pekingense* (Blüthgen, 1925)].

Subgenus *Rostrohalictus* Warncke, 1975

Lasioglossum longirostre (Morawitz, 1876)

Published data. Skhirtladze 1981: 34 (Azerbaijan).

Material examined. 16 ♀, 1 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia. – Greece, Lebanon, Israel, Turkey, Iran, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Afghanistan, China (Morawitz 1876; Blüthgen 1931; Warncke 1982; Nu et al. 2020).

Subgenus *Sphecodogastra* Ashmead, 1899

Lasioglossum albipes (Fabricius, 1781)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 7 ♀, 8 ♂.

Distribution. Caucasus: Azerbaijan, Georgia, Russia. – Europe, North Africa, Turkey, Russia (European part, Urals, Siberia), Iran, Central Asia, Mongolia, North China, Korea, Japan; Russia (Far East) [ssp. *villosum* Ebmer, 1995].

Lasioglossum anellum (Vachal, 1905)

Fig. 1A–D

Published data. Kokujev 1913: 5, as *Halictus schelkovnikovi* (Azerbaijan); Blüthgen 1923: 295; 1931: 322 (Azerbaijan); Ebmer 1995: 602 (Azerbaijan).

Material examined. Lectotype (**designated here**), 1 ♀, *Halictus schelkovnikovi* Kokujev, 1913 // 2623 Арешск.[ий] у.[езд] [Azerbaijan, Areshsky distr.] А.Б. Шелков.[ников] [A.B. Shelkovnikov leg.] // *H. schelkovnikovi* Kok. <red label> //к.[оллекция] Кокуева [collection of Kokujev] // = *anellus* Vach. ♀, Blüthgen det. 1996 // Lectotypus *Halictus schelkovnikovi* Kokujev, 1913 design. Astafurova et Proshchalykin, 2024 <red label> // Zoological Institute St. Petersburg INS_HYM_0002719.

20 ♀, 1 ♂ of *Lasioglossum anellum*.

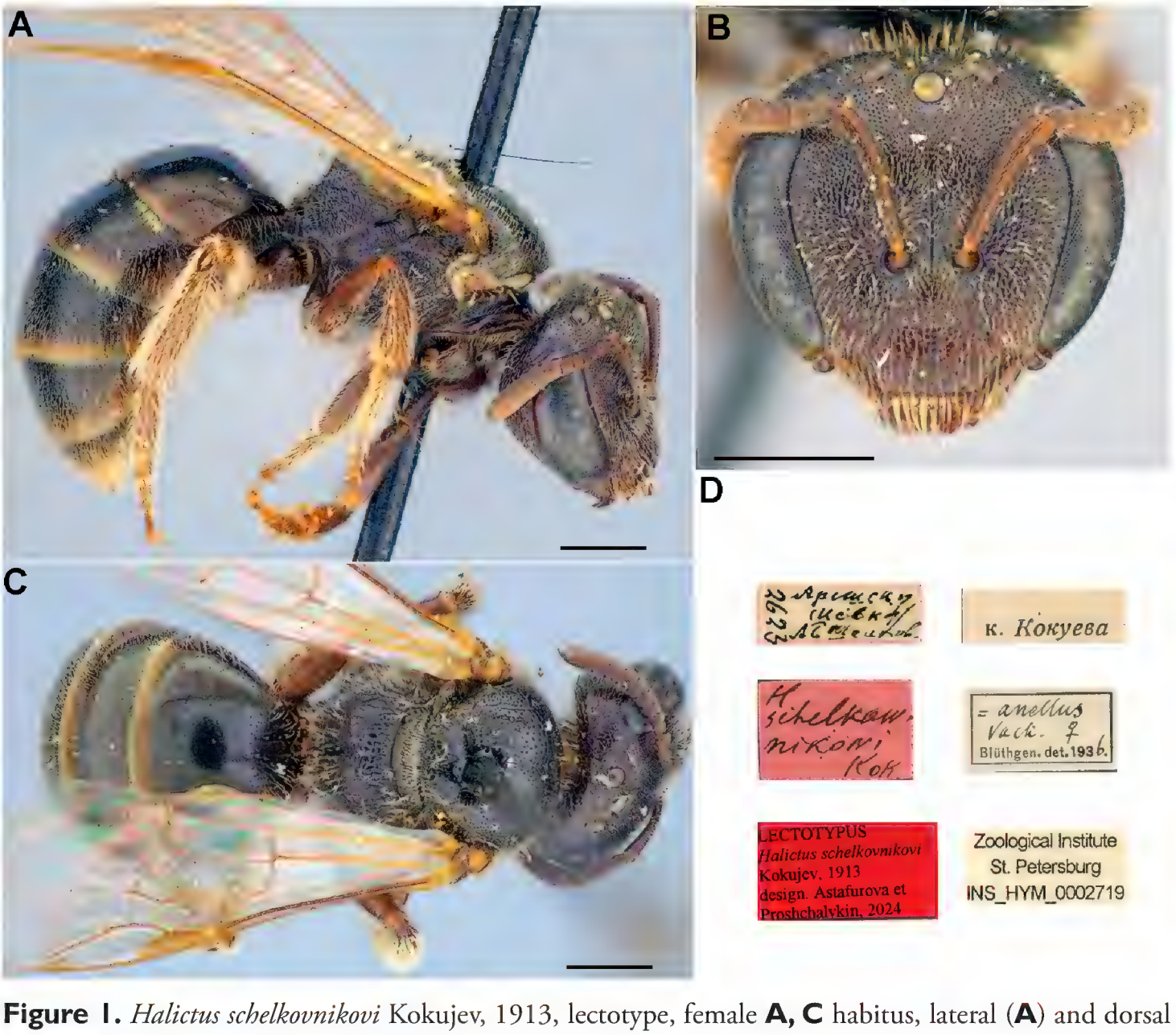

Figure 1. *Halictus schelkovnikovi* Kokujev, 1913, lectotype, female **A, C** habitus, lateral (**A**) and dorsal (**C**) views **B** head, frontal view **D** labels. Scale bar: 1.0 mm.

Distribution. Caucasus: Azerbaijan, Georgia, Russia. – Southeastern Europe, Russia (south of the European part), Turkey, Israel, Lebanon, Syria, Jordan, Iran.

Remarks. *Halictus schelkovnikovi* Kokujev, 1913 was described from Azerbaijan and this name was synonymized with *Lasioglossum anellum* (Vachal, 1905) by Blüthgen (1931: 212). Information on type specimens of *Halictus schelkovnikovi* Kokujev, 1913 was missing from Astafurova and Poshchalykin (2018). This specimen was recently found in the Halictidae collection of the ZISP and is designated here as lectotype (Fig. 1A–D).

Lasioglossum calceatum (Scopoli, 1763)

Published data. Skhirtladze 1981: 29 (Azerbaijan).

Material examined. 21 ♀, 6 ♂.

Distribution. Caucasus: Azerbaijan, Georgia, Russia. – Europe, North Africa, Turkey, Russia (east to Kuril Islands), Iran, Central Asia, Mongolia, North China, Korea, Japan.

Lasioglossum edessae Ebmer, 1974

Published data. No records in Azerbaijan.

Material examined. 24 ♀, 81 ♂.

Distribution. *Caucasus: Azerbaijan. – Turkey, Iran (Ebmer 1995).

Lasioglossum epipygiale (Blüthgen, 1924)

Published data. Blüthgen 1924: 275 ("Araxestal" [Aras River valley in Azerbaijan, Armenia and Iran]).

Material examined. –

Distribution. Caucasus: ?Azerbaijan, Armenia. – Israel, Lebanon, Iran, Turkey, Syria [nominative subspecies]; Southern Iran [?ssp. *bentoni* (Cockerell, 1919)]; Afghanistan, Pakistan [ssp. *quettense* (Blüthgen 1929)]; Pakistan, Northern India, Nepal [ssp. *massuriensis* (Blüthgen 1926)] (Ebmer 1995).

Lasioglossum euboeense (Strand, 1909)

Published data. Blüthgen 1924: 276 (Azerbaijan).

Material examined. 3 ♀, 2 ♂.

Distribution. Caucasus: Azerbaijan, Russia. – Europe (except north), North Africa, Lebanon, Turkey, Russia (south and east of the European part), Iran.

Lasioglossum fulvicorne (Kirby, 1802)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 17 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, Russia (European part), Turkey, Turkmenistan [nominative subspecies]; Armenia, NE Turkey, Iran [ssp. *antelicum* (Warncke, 1975)]; Russia (from Altai to Far East), Mongolia [ssp. *melanocorne* Ebmer, 1988]; Taiwan [ssp. *koshunochare* (Strand, 1914)].

Lasioglossum fratellum (Pérez, 1903)

Published data. No records in Azerbaijan.

Material examined. 22 ♂.

Distribution. Caucasus: *Azerbaijan, Russia. – Europe, Turkey, Russia (east to Eastern Siberia) [nominative subspecies]; Russia (Kamchatka Terr., Yakutia, Primorskii Terr.), North Korea [ssp. *betulae* Ebmer, 1978].

Remarks. Widespread in the Palaearctic region, this species is known only from the Caucasus Mountains, where the southern limit of the species' distribution is probably located.

Lasioglossum hyalinipenne (Morawitz, 1876)

Published data. No records in Azerbaijan.

Material examined. 2 ♀.

Distribution. *Caucasus: Azerbaijan. – Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Afghanistan, Iran (Morawitz 1876; Blüthgen 1931; Ebmer 1974, 1978; Murao et al. 2017).

Lasioglossum imbecillum Ebmer, 1974

Published data. No records in Azerbaijan.

Material examined. 9 ♀, 11 ♂.

Distribution. *Caucasus: Azerbaijan. – Bulgaria, Macedonia, Greece, Cyprus, Jordan, Turkey, Afghanistan (Ebmer 1995, 2014).

Lasioglossum interruptum (Panzer, 1798)

Published data. No records in Azerbaijan.

Material examined. 13 ♀, 3 ♂.

Distribution. Caucasus: *Azerbaijan [nominative subspecies], Armenia [ssp. *trispinosus* (Alfken, 1907)]. – Europe, North Africa, Lebanon, Russia (Crimea, European part) [nominative subspecies]; Romania, Syria, Turkey, Iran [ssp. *trispinosus*] (Ebmer 1988, 1995).

Lasioglossum laticeps (Schenck, 1869)

Published data. Blüthgen 1924: 280; Warncke 1982: 124, as *L. debilior*; Ebmer 1995: 562, as *L. debilior* (Kussary, Azerbaijan).

Material examined. 9 ♀, 39 ♂.

Distribution. Caucasus: Azerbaijan, Georgia Armenia, [ssp. *debilior* (Pérez, 1910)], Russia. – Europe, Russia (east to Ural) [nominative subspecies]; Crete, Israel, Syria, Lebanon, Greece, Cyprus, Turkey, Iran [ssp. *debilior*, transgression zone is situated in Greece, Turkey, Armenia and Georgia (Ebmer 1995)].

Remarks. According to Ebmer (2014: 323) *Lasioglossum debilior* (Pérez, 1910) is probably a senior synonym of *L. laticeps* ssp. *hellenicus* (Blüthgen, 1938). A. Pauly (2016), who re-examined the type, noted that the type specimens appears to be suitable. We support this opinion and consider *L. debilior* as a synonym of *L. laticeps* ssp. *hellenicus*.

Lasioglossum laeve (Kirby, 1802)

Published data. No records in Azerbaijan.

Material examined. 1 ♀, 5 ♂.

Distribution. Caucasus: *Azerbaijan, Armenia, Georgia. – Europe, Russia (east to Altai), Lebanon, Israel, Syria, Turkey, Iran.

Lasioglossum lineare (Schenck, 1869)

Published data. Blüthgen 1924: 278 (Azerbaijan).

Material examined. 8 ♀.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia. – Europe, Turkey, Syria, Israel, Lebanon, Russia (Crimea, European part), Iran, Turkmenistan.

Lasioglossum leucopymatum (Dalla Torre, 1896)

Published data. No records in Azerbaijan.

Material examined. 11 ♀, 1 ♂.

Distribution. *Caucasus: Azerbaijan. – Afghanistan, Kazakhstan, Turkmenistan, Uzbekistan (Ebmer 1995).

Lasioglossum malachurum (Kirby, 1802)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 389 ♀, 65 ♂.

Distribution. Caucasus: Azerbaijan, Georgia, Russia. – Europe, North Africa, Turkey, Israel, Lebanon, Russia (Crimea, European part), Iran, Turkmenistan.

Remarks. This is one of the most common *Lasioglossum* species with a long flight period from late March to November.

Lasioglossum mediterraneum (Blüthgen, 1926)

Published data. No records in Azerbaijan.

Material examined. 6 ♀, 3 ♂.

Distribution. *Caucasus: Azerbaijan. – North Africa, southern Europe (Ebmer 1976, 1985).

Remarks. The records from Israel, Turkey and Iran (Bytinski-Salz and Ebmer 1974; Warncke 1975) are based on misidentifications of *Lasioglossum laticeps* ssp. *hellenicum*.

Lasioglossum muganicum Ebmer, 1972

Published data. Ebmer 1972: 239 (Azerbaijan).

Material examined. 39 ♀, 8 ♂.

Distribution. Caucasus: Azerbaijan. – Greece, Turkey, Russia (Astrakhan Prov., Kalmyk Rep.), Iran.

Remarks. The status of the species was restored by Astafurova and Proshchalykin (2024: 238).

Lasioglossum nigripes (Lepeletier, 1841)

Published data. Blüthgen 1924: 275 (Azerbaijan).

Material examined. 11 ♀, 4 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, North Africa, Turkey, Jordan, Syria, Lebanon, Israel, Russia (Crimea, south of the European part), Iran, Turkmenistan, Kazakhstan.

Lasioglossum obscuratum (Morawitz, 1876)

Published data. Ebmer 1995: 547; Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 7 ♀, 16 ♂.

Distribution. Caucasus: Azerbaijan, Russia. –, Turkey, Syria, Jordan Israel, Iran, Afghanistan, Central Asia [nominative subspecies]; Southeastern Europe, Russia (Crimea, south of the European part) [ssp. *acerbus* (Warncke, 1975)].

Lasioglossum ordubadense (Friese, 1916)

Published data. Friese 1916: 33; Aliyev et al. 2007: 255 (Azerbaijan).

Material examined. 6 ♀.

Distribution. Caucasus: Azerbaijan, Armenia. – Israel, Syria, Turkey, Iraq, Iran (Bytinski-Salz and Ebmer 1974; Ebmer 1995).

Lasioglossum pauxillum (Schenck, 1853)

Published data. Ebmer 1995: 582 (Azerbaijan).

Material examined. 79 ♀, 69 ♂.

Distribution. Caucasus: Azerbaijan, Armenia, Georgia, Russia. – Europe, North Africa, Israel, Turkey, Russia (east to Western Siberia), Iran, Turkmenistan.

Lasioglossum pistorium (Vachal, 1902)

Published data. No records in Azerbaijan.

Material examined. 9 ♂.

Distribution. *Caucasus: Azerbaijan. – Southern Turkmenistan, southern Uzbekistan, western Iran, northeastern Afghanistan (Blüthgen 1923; Ebmer 1995).

Lasioglossum reinigi Ebmer, 1978

Published data. No records in Azerbaijan.

Material examined. 1 ♀, 13 ♂.

Distribution. *Caucasus: Azerbaijan. – Iran (Ebmer 1978, 1995).

Lasioglossum skorikovi (Blüthgen, 1929)

Published data. Blüthgen 1931: 354, as *Halictus samarkandinus* (Julfa, Azerbaijan).

Material examined. –

Distribution. Caucasus: Azerbaijan. – Turkey, Iran, Afghanistan, Turkmenistan, Uzbekistan (Blüthgen 1931; Ebmer 1995).

Lasioglossum setulosum (Strand, 1909)

Published data. No records in Azerbaijan.

Material examined. 1 ♀.

Distribution. *Caucasus: Azerbaijan. – Central and Eastern Europe.

Lasioglossum sociorum (Blüthgen, 1924)

Published data. Blüthgen 1924: 263 ("Araxestal" [Aras River valley in Azerbaijan, Armenia and Iran]).

Material examined. 2 ♀, 3 ♂.

Distribution. Caucasus: *Azerbaijan, Armenia. – Cyprus, Turkey, Iran (Ebmer 1995).

Species to be excluded from the Azerbaijani *Lasioglossum* checklist

Lasioglossum (*Lasioglossum*) *lebedevi* Ebmer, 1972

Published data. Aliyev et al. 2007: 254 (Azerbaijan).

Distribution. Southern Kazakhstan.

Remarks. We do not confirm the record of this species from Azerbaijan, the record of this species by Aliyev et al. (2007) is a possible misidentification.

Lasioglossum (*Lasioglossum*) *sexmaculatum* (Schenck, 1853)

Published data. Aliyev et al. 2007: 254 (Azerbaijan).

Distribution. Europe (to Poland and Lithuania), Iran.

Remarks. We not confirm the record of this species from Azerbaijan, the record of this species by Aliyev et al. (2007) is a possible misidentification.

Lasioglossum (*Leuchalictus*) *niveocinctum* (Blüthgen, 1923)

Published data. Aliyev et al. 2007: 255 (Azerbaijan).

Distribution. Russia (North Caucasus, South of the European part), Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, North China.

Remarks. We not confirm the record of this species from Azerbaijan, the record of this species by Aliyev et al. (2007) is a possible misidentification.

Discussion

In total, 101 *Lasioglossum* species are recorded from Azerbaijan. For comparison, 120 species are known from the whole of the Caucasus (Suppl. material 2). To date, the *Lasioglossum* fauna of Azerbaijan is the most studied in the Caucasus region.

Only 14 species recorded in Azerbaijan are widespread in the whole Palaearctic region: *L. albipes*, *L. calceatum*, *L. fulvicorne*, *L. fratellum*, *L. leucozonium*, *L. leucopus*, *L. lucidulum*, *L. marginatum*, *L. politum*, *L. quadrinotatulum*, *L. rufitarse*, *L. tungusicum*, *L. villosulum*, *L. zonulum*. Twenty-five species are widespread in West Palaearctic: *L. ageratum*, *L. brevicorne*, *L. clypeare*, *L. convexiusculum*, *L. costulatum*, *L. elegans*, *L. euboeense*, *L. fallax*, *L. interruptum*, *L. laeve*, *L. laticeps*, *L. lineare*, *L. malachurum*, *L. morio*, *L. nigripes*, *L. nitidiusculum*, *L. obscuratum*, *L. quadrinotatum*, *L. parvulum*, *L. pauxillum*, *L. punctatissimum*, *L. puncticolle*, *L. semilucens*, *L. sexnotatum*, and *L. xanthopus*. Six species are distributed in Europe to Caucasus: *L. intermedium*, *L. laevigatum*, *L. lativentre*, *L. quadrisignatum*, *L. setulosum*, and *L. tarsatum*. Fourteen species occur from Mediterranean region or South Europe to Central Asia (or some species to Mongolia and North China): *L. aegyptiellum*, *L. caspicum*, *L. clypeiferellum*, *L. discus*, *L. fallax*, *L. hilare*, *L. limbellum*, *L. longirostre*, *L. mandibulare*, *L. mesoscleroum*, *L. pygmaeum*, *L. picipes*, *L. subaenescens*, and *L. truncaticolle*.

More than half of the *Lasioglossum* fauna of Azerbaijan is formed by species with smaller areal or endemic distributions. Twenty-four species are distributed from southern Europe to the Caucasus, or from the Mediterranean to the Middle East and

the Caucasus (some species also occur in Iran, Afghanistan and India): *L. anellum*, *L. bicallosum*, *L. bluethgeni*, *L. corvinum*, *L. crassepunctatum*, *L. cristula*, *L. epipygiale*, *L. euxinicum*, *L. glabriusculum*, *L. griseolum*, *L. hethiticum*, *L. imbecillum*, *L. kussariense*, *L. laevidorsum*, *L. medinai*, *L. mediterraneum*, *L. muganicum*, *L. ordubadense*, *L. peregrinum*, *L. podolicum*, *L. prunellum*, *L. stolidum*, *L. subfasciatum*, and *L. transitorium.*

Eleven species have the Caucasus-Central Asian distribution: *L. adabaschum*, *L. ciscapum*, *L. croceipes*, *L. equestre*, *L. euxanthopus*, *L. hyalinipenne*, *L. leucopymatum*, *L. maculipes*, *L. popovi*, *L. pastorium*, *L. skorikovi.*

Eight species are endemic to Turkey and the Caucasus (some species found in Iran or northern India): *L. araxanum*, *L. acephaloides*, *L. argaeum*, *L. edessae*, *L. korbi*, *L. reinigi*, *L. sociorum*, and *L. talyschense.*

Thus, the fauna of Azerbaijan is very diverse and consists of species with wide Palaearctic or Western Palaearctic ranges, as well as elements of Mediterranean, European, Central Asian faunas and a small number of endemics.

Most species are confined to the steppe zone, polyzonal species are common, but forest and desert species are also found. According to the studied material, *Lasioglossum malachurum*, *L. marginatum*, *L. politum*, and *L. glabriusculum* are the most common species of *Lasioglossum* in Azerbaijan.

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Supplementary material 1

List of Azerbaijani *Lasioglossum* species with labeling data
Authors: Yulia V. Astafurova, Mahir M. Maharramov, Maxim Yu. Proshchalykin
Data type: docx
Explanation note: List of all 2150 examined specimens of the *Lasioglossum* bees from Azerbaijan.
Copyright notice: This dataset is made available under the Open Database License (http://opendatacommons.org/licenses/odbl/1.0/). The Open Database License (ODbL) is a license agreement intended to allow users to freely share, modify, and use this Dataset while maintaining this same freedom for others, provided that the original source and author(s) are credited.
Link: https://doi.org/10.3897/jhr.97.135381.suppl1

Supplementary material 2

List of *Lasioglossum* bees recorded from the Caucasus region
Authors: Yulia V. Astafurova, Mahir M. Maharramov, Maxim Yu. Proshchalykin
Data type: docx
Explanation note: List of 120 species of bees of the genus *Lasioglossum* recorded in the Caucasus region, with distribution by countries and subregions.
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Link: https://doi.org/10.3897/jhr.97.135381.suppl2